



The Nationwide Health Information Network (NHIN) is a “network of networks” built out of state and regional health information exchanges (HIEs). The NHIN Trial Implementations involve North Carolina along with eight other states and 26 federal agencies. The Trial Implementations are designed not just to test the technical connectivity of disparate health information exchanges, but to create the local and national policies, procedures, business cases and collaboratives required to support these exchanges.

The NHIN Trial Implementations will leverage the work done by other HHS-supported initiatives: the Healthcare Information Technology Standards Panel (HITSP), the Certification Commission for Healthcare Information Technology (CCHIT), the Health Information Security and Privacy Collaboration (HISPC) and the National Committee on Vital and Health Statistics (NCVHS).

The benefits of participating in the NHIN Trial Implementations include:

- Providers and Medical practices (and their vendors) will help *establish interoperability standards* for physician practice systems
- Clinical champions will have tangible progress on *interoperability*
- Individuals will gain *professional development* as they help advance the field of HIT
- Patients will become *more actively involved* via a consumer controlled, but electronically sharable, *Personal Health Record*
- Care delivery organizations that exchange clinical data will be viewed as leading *proponents of interoperability and patient safety*
- Patients, particularly those with complicated medical histories, will *seek out early adopters* that can easily exchange medical data across caregivers
- Communities achieving widespread adoption of clinical interoperability will *compete successfully* for clinicians, businesses and jobs
- Participation will encourage community-based *investment by health care vendors* (e.g., physician practice systems and commercial labs)

NHIN Health Information Exchanges must include:

- Five or more competing provider organizations
- Different types of provider organizations, including independent physician practices and safety net providers
- Both inpatient and outpatient settings
- Both provider applications (EMRs) and consumer applications (PHRs)
- Applications from multiple competing vendors

The North Carolina Healthcare Information and Communications Alliance (NCHICA) was awarded the NHIN contract for the state of North Carolina. The NHIN Steering Committee and the NC Health Information Council provide guidance on policies and procedures. The technical architecture and project management methodology is provided by IBM under a subcontract to NCHICA, and builds upon IBM's experience with the NHIN 1: Architectural Prototype contract.



The North Carolina Healthcare Information and Communications Alliance, Inc. (NCHICA) is a nationally recognized nonprofit consortium that serves as an open, effective and neutral forum for health information technology (HIT) and policy initiatives that improve health and care in North Carolina. NCHICA's 200 members include leading organizations in healthcare, research and information technology. Working closely with its members, NCHICA has the unique ability to convene and form partnerships to advance HIT adoption. NCHICA's leadership in conducting demonstration projects, hosting educational sessions and fostering collective efforts within North Carolina helps position the state at the vanguard of national HIT acceleration efforts.

Provider Responsibility for Core Services and EHR Use Cases

- Transmit patient summary and laboratory test results – from EMR and disparate laboratory information systems to NC HIE
- Integrate patient summaries and lab results from NC HIE into EMR – Receive summary documents and test results for integration into the clinician's EMR, or sends the content to another clinical data system for viewing
- Send user credentials – when querying for patient summary or lab results from other sources to NC HIE
- Receive notification of availability of new lab test results – receive result location and related information by the ordering clinician and other providers of care

Core Services

Key Data Services

- Data delivery
- Summary record exchange
- Patient look-up in an NHIE and between NHIEs
- Supporting access to data for secondary uses

Key User and Identity Management Services

- User identity proofing, authentication and authorization or attest for connected organizations
- Identity adjudication between NHIEs

Key Management Services

- System and trusted user protection
- Emergency access (individual and community)

Use Cases

Consumer Access to Clinical Information

Functionality Required

- Permission Control by Clinical Data Owners
- ID Proofing and Access Control for Consumers

Scenarios

- Consumer views and retrieves clinical information
- Consumer creates provider lists and establishes access permissions
- Consumer transfers PHR information between PHRs

Use Case Perspectives

- Consumer
- Provider



Common Processes

- Adjudication of identities, i.e., reconciling person identity between health information service providers and provider entities
- Create and maintain access control lists – requires cross system provisioning of access privileges

Electronic Health Record Lab Results Reporting

The use case will provide the following functionality for laboratory results reporting and notification:

- *Transmission* of complete, preliminary, final and updated lab results *to the EHR system* (local or remote) of the *ordering clinician*
- *Transmission* of complete, preliminary, final and updated (*or notification*) *to the EHR system* (local or remote) or other clinical data system of *designated providers of care* (with respect to a specific patient)
- *Retrieval of historical lab results* by providers of care
- Clinician access to test results *respects privacy concerns, sensitivity designations* or other attributes
- Clinician access to results respects *access rules determined by policy* (e.g., certain results categorized as *sensitive* and not normally made available)
- Sending and accepting appropriate *acknowledgement of receipt* for interactions

Projected Resource Consumption for Participants:

The level of staff time required by each participating organization is driven by the current compliance with the “Integrating the Healthcare Enterprise” document sharing profiles. Less compliant organizations will require more effort from their staff or their vendors to prepare for connectivity.

Tentative Schedule:

March – Interface Development	April – Initial connection with participants
May – Prepare for NC test exchange	June – Demonstrate NC exchange
July – Prep for cross-community exchange	August – Test cross-community exchange
September – Demonstration(s)	

NCHICA NHIN Trial Implementations Estimated Phasing

Time Commitment Estimates:										
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Sponsor - CEO, CFO, CMO, etc.		X							X	
Technical Lead - CIO or deputy		X	X	X	X	X	X	X	X	
Project Management		X	X	X	X	X	X	X	X	
Network Management			X			X	X	X	X	
Data Interface Management		X	X			X	X	X	X	
Medical Records Management		X	X				X			
Attorney (In-house or retained)		X				X				
Participating Clinicians		X				X	X	X	X	
Participating Patients						X	X	X	X	